



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/204,222 12/03/98 ISHIWATA

N NE063

000466  
YOUNG & THOMPSON  
745 SOUTH 23RD STREET 2ND FLOOR  
ARLINGTON VA 22202

WM02/0319

EXAMINER

KLIMOWICZ, W

ART UNIT

PAPER NUMBER

2652

DATE MAILED:

03/19/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/204,222

Applicant(s)

ISHIWATA ET AL.

Examiner

William J. Klimowicz

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Att. to Patent

15) ☐ References Cited (PTO-892)

16) ☐ Person's Patent Drawing Review (PTO-948)

17) ☐ Figure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

18) ☐ Interview Summary

19) ☐ Notice of Invention

20) ☐ Other

Art Unit: 2652

## **DETAILED ACTION**

### ***Claim Objections***

Claims 22-31 are objected to because of the following informalities:

With regard to claims 22-31 (line 1 of each claim), the phrase --A magneto-resistance effect element” should be changed to the phrase --The magneto-resistance effect type composite head-- in order to remain consistent with the preamble of claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 21 (line 25), the phrase “said first magnetic pole layer” lacks positive antecedent basis.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2652

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-12, 14, 16, 17, 21, 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Dill et al. (US 5,898,548).

See the Office action (Paper No. 8, mailed April 21, 2000) for a full description of Dill et al. (US 5,898,548) as applied to the claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dill et al. (US 5,898,548).

See the Office action (Paper No. 8, mailed April 21, 2000) for a full description of Dill et al. (US 5,898,548) as applied to the claims.

Claims 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dill et al. (US 5,898,548) in view of Krounbi et al. (US 5,018,037).

See the Office action (Paper No. 8, mailed April 21, 2000) for a full description of Dill et al. (US 5,898,548) as applied to the claims.

With regard to claim 22, Dill et al. (US 5,898,548) does not expressly show the center region of the magneto-resistance element having inclined walls covered by an insulation film.

Official notice is taken that inclined sidewalls as set forth in claim 22 are notoriously old and well known in the art.

As just a specific example, Krounbi et al. (US 5,018,037), however, discloses the conventional structure of providing inclined sidewalls of an MR film covered with a magnetic insulation film (e.g., see COL. 3, lines 1-3) for the express purpose of providing a well controlled topography at the junction of the MR layer and its associated biasing layer (e.g., see COL. 3, lines 40-45), wherein the thickness of the underlayer must be thinner than that of the center region as seen in FIG. 5 (and as well known in the art).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the slanted sidewalls of the junction between the MR layer and its associated insulation and biasing layer, as is known in the art, exemplified by Krounbi et al. (US 5,018,037), to the head of Dill et al. (US 5,898,548). The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the slanted sidewalls of the junction between the MR layer and its associated insulation and biasing layer, as is known in the art, exemplified by Krounbi et al. (US 5,018,037), to the head of Dill et al. (US 5,898,548) for the express purpose of providing a well controlled topography at the junction of the MR layer and its associated biasing layer (e.g., see COL. 3, lines 40-45).

As per claims 24-31, see the Office action (Paper No. 8, mailed April 21, 2000) for a full description of Dill et al. (US 5,898,548) as applied to the claims 24-31, which parallel the previously rejected claims.

***Response to Arguments***

Applicants' arguments filed January 26, 2001 have been fully considered but they are not persuasive.

The Applicants allege that Dill et al. (US 5,898,548) was filed in the U.S on May 29, 1998, and the certified copy of the Applicants' corresponding foreign priority document of December 5, 1997, obviates the rejection since it is alleged that Dill et al. (US 5,898,548) is no longer prior art.

The Examiner directs the attention of the Applicants' to the filing date of Dill et al. (US 5,898,548) as listed on its patent face as being October 24, 1997. The Applicants' perfection of priority based on the translation of their Japanese application does not antedate this US filing date.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

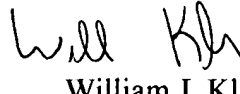
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on M-F (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen (Acting) can be reached on (703) 305-9687. The fax phone numbers

Art Unit: 2652

for the organization where this application or proceeding is assigned are (703) 308-9051 for regular communications and (703) 308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
William J. Klimowicz  
Primary Examiner  
Art Unit 2652

WJK  
March 14, 2001